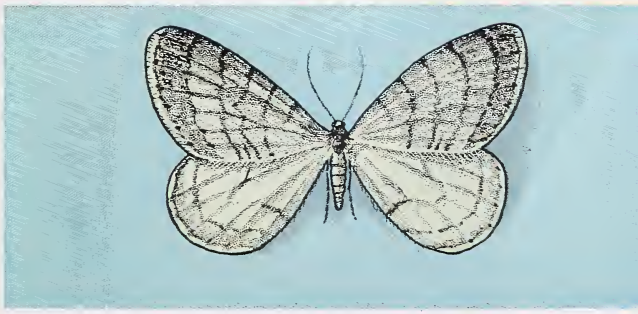
WATCH FOR NEW

PLANT PESTS

the WINTER MOTH



UNITED STATES DEPARTMENT OF AGRICULTURE • PA-580

The Winter Moth

The winter moth[1] is not known to occur in the United States.* It may get in. *If it does, and if it becomes established, it will cause serious crop damage and financial loss. Watch for this insect and for any other insects you do not recognize. Report them promptly so they may be identified, controlled, and possibly eradicated.

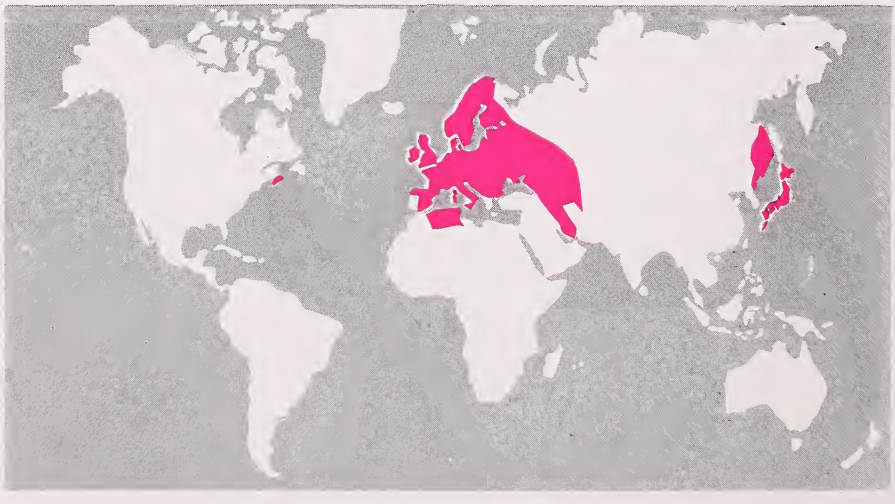
The winter moth injures fruit trees and forest trees by defoliating them. It attacks apple, apricot, cherry, pear, peach, plum, and other deciduous fruit trees, as well as hardwoods and ornamentals. It also injures the fruit itself.

This insect has been a major pest in areas of the Old World for many years. An outbreak in 1935–36 in central Poland caused complete defoliation of forest trees. The pest has caused heavy damage to fruit in the British Isles, Denmark, Czechoslovakia, Algeria, and parts of Russia.

The only area in North America it is known to infest is Nova Scotia, Canada. It was found there in 1949, and is well established. A local outbreak in 1955 at Grand Pré, Nova Scotia, caused about 80-percent defoliation of untreated apple orchards and various hardwood species.

Because of its wide variety of hosts, the winter moth would be extremely

[1] *Operophtera brumata.*



BN–17276

Geographic distribution. Red areas indicate parts of the world where the winter moth occurs.

difficult to control if it became established in the United States. It might cause annual losses of many millions of dollars. The following figures indicate the scope of possible loss: In 1960, our eight major deciduous fruits were grown on almost 1¾ million acres. The apples produced were valued at about $219 million, the peaches at about $134 million, and the pears at close to $55 million.

The winter moth might also cause extensive damage to our 225 million acres of commercial hardwood forests, as well as to our noncommercial forests.

BN–17271

Damage to apple foliage caused by the winter moth.

DESCRIPTION OF INSECT

The young larvae are dirty green and have dark heads. Fully grown larvae are green, have dark-brown heads, and are about 1 inch long; they have a dark line down the center of the back, and three yellow stripes along each side. The larvae crawl in a manner similar to that of a measuring worm.

The male adult has fully developed wings, and flies. Forewings are light brownish gray; hindwings are pale grayish white; wingspan is slightly more than 1 inch. The female adult develops stumps instead of wings, and cannot fly; it moves by crawling. It is gray to grayish brown, and has a prominent abdomen.

Adults of the winter moth. Left, male; right, female. Enlarged.

DESCRIPTION OF DAMAGE

The larvae cause the damage. Young larvae burrow into fruit buds and feed in the blossoms. Before reaching maturity, the larvae crawl over the tree and feed on the foliage and young fruit.

The Plant Pest Problem

At least half of our most destructive insects entered the United States from other countries, many before the Plant Quarantine Act of 1912 was passed. Today, thousands of plant pests are intercepted at our borders by plant quarantine inspectors, but some of them still gain entry.

When a new pest is detected, organized efforts are exerted to (1) pinpoint the areas where it has become established, (2) set up quarantines to prevent spread, and (3) control the pest and eradicate it if possible. The sooner a new pest is detected, the better is the chance of controlling or eradicating it before it does serious damage.

What You Can Do

Watch for this pest. If the winter moth should gain entry here, the adult moths probably would appear from October to January. The males would fly in the evening, and would be attracted to lights. Larvae would hatch in March and April when buds reach the breaking stage.

If you find strange moths flying during the winter months, or larvae you do not recognize early in spring, send specimens to your nearest agricultural official. Mail them in a small bottle containing rubbing alcohol. Include a note giving your name and address, and telling where the specimens were found and on what tree or plant. Do not send live specimens. If your local agricultural official does not recognize the specimens, he will send them to the proper authorities for identification.

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